

Remarks

Applicants request entry of this amendment in the cited application. When this amendment is entered, claims 14-22, 24-29 and 31-35 are pending in the application. Claims 23 and 30 are canceled. New dependent claims 33-35 are added. Claims 1-13 have been withdrawn from consideration.

Applicants have prepared a new declaration for signature by the inventors as requested by the Examiner. This new declaration will replace the previously submitted declaration that is of record in the application. Upon receipt of the fully executed declaration, it will be forwarded to the Examiner in a separate communication for entry in this application. A copy of the new declaration (without the needed signatures) is attached.

Claims 14, 24 and 31 are amended to recite that the elastically deformable ring includes a plurality of petals. Support for this amendment is set out in the specification and drawings as well as in now canceled claims 23 and 30. Further, support for new claims 33-35 is set out in the specification at column 3, paragraph 0048 of the published application number US 2004/0215200. No new matter is added by this amendment.

In the outstanding office action, the Examiner addressed the arguments that were provided in an earlier response and pointed out that the claims did not recite features that were different from the features that are reported in the cited references. The amended claims now recite a plurality of petals in the elastically deformable ring that are different from the features reported in the references. In addition, the Examiner indicated that it was unclear what was being referred to by the term “inner services of an acetabular cup.” This is an inadvertent typographical error and it was simply intended to refer to the “inner surfaces” of such an acetabular cup or the surface of the cup that contacts the movable component of an artificial hip or the part of the femur. This typo has been corrected in the following detailed arguments.

In this final office action, the Examiner maintains the rejection all of the pending claims based on three previously cited references. Briefly, the pending claims are rejected as anticipated by either US 4,632,111 or US 5,116,339 and as being unpatentable based on the combination of US 4,632,111 in view of US 4,305,394 or the combination of US 5,116,339 in view of US 4,305,394.

In maintaining a related set of rejections under 35 USC 102(b), the Examiner applied three interpretations of US 4,632,111 (the ‘111 patent) to reject selected claims. Claims 14, 16, 17, 21, 22, 24, 27, 28 and 29 are rejected under a first interpretation, claims 14, 18-20 and 26 are rejected under a second interpretation and claim 31 is rejected under a third interpretation. Applicants respectfully submit that the ‘111 patent does not anticipate any of the these selected claims under the three different interpretations set out by the Examiner.

As noted in a previous response, the ‘111 patent reports a device for positioning a prosthetic acetabulum or acetabular cup. In this device, the inner surface of the acetabular cup is gripped with an elastically deformable ring (a silicone ring) when the ring is compressed between the shoulder of a groove holding the ring in a fixed endpiece and an adjustable flange. As the deformable ring is compressed, it expands radially to grip or secure the inner surface of the acetabular cap. The adjustable flange is moved using a threaded rod and rotatable collar.

Applicants again traverse this rejection because the claimed endpiece as amended and the endpiece reported in the ‘111 patent are clearly different and the method of engaging the cup with the endpieces are different. The endpiece in this reference does not teach or suggest a plurality of petals that are expanded in a radial manner against the inner surface of an acetabular cup. Instead the endpiece reported in the ‘111 patent is a fixed component that is rigidly attached to a rod. In operation, the fixed endpiece and rod do not move in relationship to each other. The elastic deformable ring is expanded by compressing it between the fixed endpiece and a movable flange. The flange moves relative to the rod, not the endpiece.

These reported components operate and function in a very different fashion when compared to the claimed endpiece and the operation of the now claimed endpiece. Specifically, there is no teaching or suggestion in the ‘111 patent of a plurality of petals that can be expanded with a head that contacts the inner surfaces of the petals in order to cause the outer surfaces of the petals to engage the cup and where the petals may then recovered to a non-expanded position to disengage. In short, the method of engaging the claimed endpiece with the acetabular cup is readily distinguished from the engaging method of the endpiece reported in the ‘111 patent. Applicants request that these rejections be withdrawn.

In addition, Applicants again respectfully submit that US 5,116,339 (the ‘339 patent) does not anticipate claims 14, 18, 21, 22, 23, 24, 29 and 30 under 35 USC 102(b). The ‘339 patent reports a device for positioning an acetabular cup. In this device, an expandable jaw or jaws on the end of a movable rod is used to secure the cup through a hole or opening in the acetabular cup to the endpiece of the device. This engagement method is reported at Col. 2, line 62 bridging to Col. 3, line 10 and illustrated in Figs. 1-3. In use, the rod that extends through the hole or opening in the rounded or “polar” end of the cup secures the cup to the endpiece by moving a cam on the distal end of the rod in order to expand the jaws against the edges of the hole or opening in the cup. The rod is moved with a rotatable, threaded collar.

Applicants traverse this rejection because the claimed endpiece and the endpiece reported in the ‘339 patent are different and the methods of engaging the cup are different. The endpiece in this reference is not expanded against the inner surfaces of an acetabular cup. Instead, the endpiece is a fixed component that is drawn against the inner surface of an acetabular cup by a rod which extends through a hole in the cup. The end of the rod is intended or configured to extend or fit through this hole or opening in order to secure the endpiece to the cup. The endpiece itself is not expandable or deformable. As set out earlier, these reported components operate and function in a very different fashion when compared to the operation of the now claimed endpiece which uses a plurality of petals that are expanded to engage the cup and then recovered to a non-expanded position to disengage. Importantly, the device reported in ‘339 patent simply could not be secured to the cup unless there is an opening or polar hole in the cup. There is no need for this polar opening in the cup in order to secure the present device to the cup as set out in the claimed method. In sum, the method of engaging the claimed endpiece with the cup is readily distinguished from the engagement method of the endpiece reported in the ‘339 patent. Applicants request that this rejection be withdrawn.

Finally, Applicants respectfully submit that neither the combination of the ‘111 patent with US 4,305,394 nor the combination of the ‘339 patent with US 4,305,394 make the pending claims unpatentable under 35 USC 103. Briefly, US 4,305,394 reports a device where the endpiece of the device is interchangeable so that the rounded endpiece of the device can be changed to fit the size of the acetabular cup that is to be implanted. In this

patent, the acetabular cup itself is positioned on the interchangeable endpiece of the device using alignment pins.

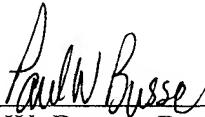
Applicants submit that the cited combinations do not teach or suggest the now claimed invention and that the secondary reference, US 4,305,394, does not overcome the noted deficiencies of either the '111 patent or the '334 patent that are set out in the discussion above. There is nothing in the two combinations relied on by the Examiner that teach or suggest the method of engaging an acetabular cup that is recited in the pending claims. Applicants request that the rejection under 35 USC 103 be withdrawn.

Conclusion

Applicants submit that the amended claims are in condition for allowance and are not unpatentable in view of the references relied upon by the Examiner in the outstanding final office action mailed November 21, 2007. Applicants respectfully request a notice of allowance in this application.

Respectfully submitted,

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Dated: January 22, 2008
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